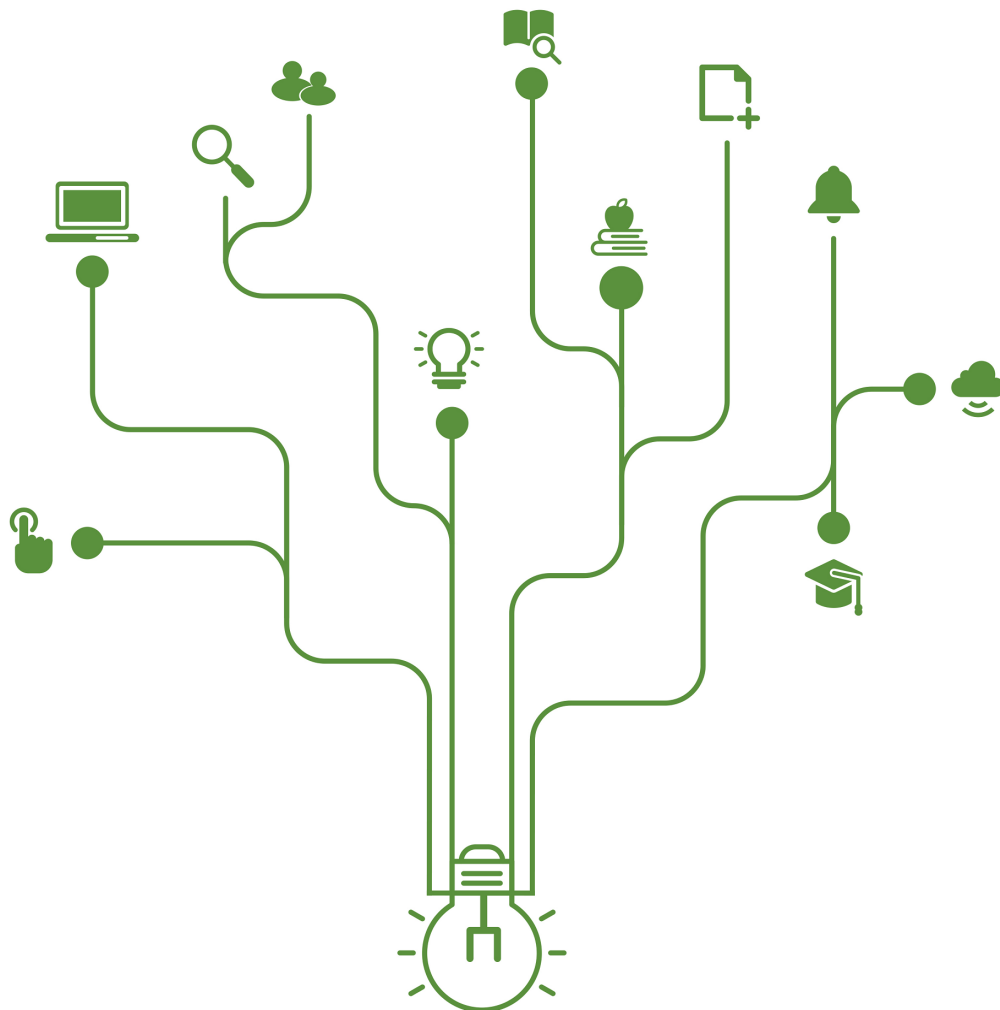


Public Sector Corruption and Perceived Government Performance in Transition

Tima T. Moldogaziev, Cheol Liu



Public Sector Corruption and Perceived Government Performance in Transition

Tima T. Moldogaziev, Ph.D.
Associate Professor
324 Pond Laboratory
School of Public Policy
Pennsylvania State University
University Park, PA 16802
United States of America
timatm@psu.edu

Cheol Liu, Ph.D.
Associate Professor
KDI School of Public Policy and Management
S445, 263 Namsejong-ro
Sejong, 30149
Republic of Korea
cliu@kdischool.ac.kr

Abstract

We offer evidence that public sector corruption has an inverse association with evaluations of performance at both the local and central government levels. Consistent with ex ante expectations, perceptions of corruption among local government officials is directly and negatively related to performance evaluations at the local government level and less so at the central government level. Conversely, perceptions of corruption among overall government officials have a stronger negative association with performance evaluations of central governments compared to performance evaluations of local governments. These results confirm that individual evaluations of public sector corruption affect perceived government performance levels, with central-local, local-central, and local-local level variances apparent in multilevel regression models. Robust regressions by groups, such as European Union membership, or geographic clusters, such as Southeastern Balkan or the former Soviet Union states, continue to support the core findings with one caveat. As discovered in two-level random intercepts and slopes regression models of countries in transition, the negative association between corruption and government performance evaluation is weaker in contexts with greater perceived levels of public corruption.

Keywords

public corruption; organizational performance; governance in transition

INTRODUCTION

Public sector corruption is the use of public resources for private gain (Beeri and Navot 2013; Liu and Mikesell 2014; OECD 2005; Rose-Ackerman 1999; TI 2018; Treisman 2007). Consequently, as resources are channeled toward private utility gains, public organizations will produce suboptimal outcomes. The literature on the consequences of public sector corruption describes that corruption retards economic growth (Abed and Gupta 2002; Ehrlich and Lui 1999; Mauro 1995; Pellegrini and Gerlagh 2004; Shleifer and Vishny 1993), brings government waste and resource misuse (Goel and Nelson 2011; Liu and Mikesell 2014, 2019; Liu, Moldogaziev, and Mikesell 2017; Moldogaziev, Liu, and Luby 2017; Pashev 2011; Rosell and Saz-Carranza 2019), results in structural malfunctions of governments (Beeri and Navot 2013), and deteriorates civil service management and public service capacity (Meyer-Sahling, Mikkelsen, and Schuster 2018; Vyas, Jung, and Huque 2013). At the individual level, public sector corruption erodes trust and support for public institutions (Anderson and Tverdova 2003; Collins and Gambrel 2017; Hazell, Bourke, and Worthy 2012; Pellegata and Memoli 2016; Porumbescu 2016; Thaler and Helmig 2015; Villoria, Van Ryzin, and Lavena 2013; Wallace and Latcheva 2006; Zurnić 2019), diminishes political efficacy and confidence, and increases instances of negative citizen responses toward public organizations (Clausen, Kraay, and Nyiri 2010; Holmes 2003; Pellegata and Memoli 2018; Villoria, Van Ryzin, and Lavena 2013), and reduces civic participation (Ingrams and Schachter 2019; Kickert 2011; Mizrahi and Minchuk 2019).

Broadly speaking, the post-Communist countries, collectively referred to as countries in transition, often lead in corruption charts of major watchdog organizations--Transparency International or the World Justice Project. While there is currently a great deal of heterogeneity among them in levels of corruption and the quality of governance institutions, with several exceptions, the region as a whole has been a testing field for numerous anti-corruption efforts and initiatives (Barrett 2000; Borzel and van Hullen 2014; Holmes 2003, 2006; Pellegata and Memoli 2018; Schmidt-Pfister and Moroff 2013; Wallace and Latcheva 2006). Consequently, researchers and practitioners of public sector governance have been and continue to be interested in tackling public corruption as one of the most challenging governance tasks that countries in transition are facing. There are stories of both successful and unsuccessful anti-corruption reforms in post-Communist countries (Baimenov and Liebert 2019; Borzel and Hullen 2014; Nasuti 2016). What is clear is that this region can offer lessons for both developed and developing countries--be it high

quality e-governance in Estonia offering relevant lessons for other European Union members or a success story in the Republic of Georgia that other emerging countries in the region and around the world may wish to learn from (Baimenov and Liebert 2019; Ivanov 2013).

There is little necessity to contest that public sector corruption decreases the efficiency, effectiveness, and equitability of service provision. Given such negative outcomes, it is reasonable that performance levels of public organizations, both actual and perceived, will be inversely associated with public corruption. The association between corruption and key governance outcomes may be nuanced, with central-local, local-central, and local-local level variances (Beerli and Navot 2013). We posit, therefore, that corruption will have a negative association with perceived levels of organizational performance, both at local and central government levels. However, we expect that evaluations of corruption levels at the local level will have the greatest association with perceived local government performance and less so with perceived central government performance. Conversely, we expect that evaluations of (broader) overall government officials' corruption levels will have the greatest association with evaluations of central government performance and less so with evaluations of local government performance. Finally, we expect the association to hold when we control for country level measures of public corruption in two-level random intercepts and slopes regression models.

LITERATURE REVIEW

Numerous articles and books have been written on the construct and measurement of corruption in the public sector (Navot 2014; Rose-Ackerman 1999; Treisman 2007; Warren 2004). The key difficulty is often linked to the extent of 'knowability' of this phenomenon, each approach to data generation with its own strengths and weaknesses. Conviction rates and the rate of judicial work-loads have been broadly utilized to measure public sector corruption (e.g., Liu and Mikesell 2014), yet criticized for the role that effort to tackle corruption may be an endogenous factor. Moreover, this approach, while appropriate for countries with relatively mature governance institutions, may become problematic in highly corrupt contexts where institutions are weak and justice is likely for sale.

Surveys of legal and other experts have been utilized, as were surveys of business owners and the citizenry, to close potential gaps that conviction rates data may have. The

typical concerns with such data collection tools, however, are whether the degree of potential subjectivity muddles or further hinders ‘knowability’ of public sector corruption and its consequences for governance (Ko and Samajdar 2010; Lancaster and Montinola 2001; Pellegata and Memoli 2016; Treisman 2007). However, when it comes to measuring perceptions and individual level evaluations of public policy outcomes or performance of public organizations, quality of survey data and analytical and reporting techniques are critical (Folz 1996; Lee, Benoit-Bryan, and Johnson 2012; Payne 2014; Resh et al. 2019). With this in mind, we concur with existing research that studying individual level perceptions continues to be critical as they allow governance scholars and practitioners to gain important insights about individual evaluations of public organizations and their outcomes (Pellegata and Memoli 2016; Percy 1986; Van Ryzin 2015; Villoria, Van Ryzin, and Lavena 2013).

Public perceptions are key to how individuals take positions, evaluate, and interact with public policies and public organizations (Glaser and Denhardt 2000; Page and Shapiro 1983; Wlezien and Soroka 2016). But why should public perceptions relate to evaluations of organizational performance? In line with Pellegata and Memoli (2016), we focus on ‘specific support’, which is how individual perceptions channel toward outcomes of public organizations. Percy (1986, 70) compellingly argues that this channel is clearest for evaluations of public organizational performance at the local level because: “Citizen perceptions of the service activities of local governments are affected by both direct and indirect contacts with public agencies. The most salient influences on citizen perceptions are likely to be their experiences with the representatives of public agencies. These interactions provide citizens with personal insight into service-rendering efforts, in a context in which they have a clear stake in the outcome of such efforts.” Importantly, the context in which a service is provided and individual characteristics are significant factors in his theoretical framework. He concludes “that citizens are capable of perceiving the actions of local service agencies and that they employ these perceptions when evaluating service agencies. While no one study can definitively answer this important question, the evidence presented here suggests that it is not appropriate to reject outright citizen evaluations as performance indicators” (Percy 1986, 81).

As the vast literature on public corruption suggests, there is overwhelming evidence that public sector corruption decreases the efficiency, effectiveness, and equitability of service provision. Given such negative outcomes, it is reasonable that the overall performance levels of public organizations, both actual and perceived, would decrease with

public corruption. For example, in their review of successfully prosecuted cases, Graycar and Villa (2011) conclude that the loss from corruption was primarily in the form of weak governance capacity rather than a monetary loss. At the same time, the association between public corruption and key governance outcomes may be nuanced, with central-local, local-central, and local-local level variances (Beeri and Navot 2013). Several key takeaway points from Beeri and Navot (2013) are that local governments now deliver important services to the residents through local governance arrangements, the devolved governance models create potential sources for local corruption, and that citizens are capable of differentiating between local and central government sources of corruption. This is certainly corroborated in research that, while there may be a degree of correlation between local and national levels of public corruption, the two may vary within and between countries and have varying levels of influence on attitudes toward or about public sector organizations (Pellegata and Memoli 2016). Beeri and Navot (2013), in particular, present empirical evidence that perceptions of local corruption are inversely associated with evaluations of local government performance and the strength of the local authority.

Based on the framework outlined above, the expectation then is that perceived local official's corruption has a more prominent role for evaluations of local government performance, while the broader measure of perceived government official's corruption is likely to have a stronger relationship with views on central government performance. Overall, however, perceptions of both local officials' and government officials' corruption will have an inverse association with local government performance and central government performance, respectively. We test the following two sets of formal hypotheses.

- *Hypothesis 1a: Perceived local officials' corruption is negatively related to evaluations of local government performance, all else equal.*
- *Hypothesis 1b: Perceived local officials' corruption is negatively related to evaluations of central government performance, all else equal.*
- *Hypothesis 1c: Perceptions of corruption among local officials is negatively related to performance evaluations at the local government level and less so at the central government level.*
- *Hypothesis 2a: Perceived government (broad measure) officials' corruption is negatively related to evaluations of local government performance, all else equal.*
- *Hypothesis 2b: Perceived government (broad measure) officials' corruption is negatively related to evaluations of central government performance, all else equal.*

- *Hypothesis 2c: Perceptions of corruption among government (broad measure) officials is negatively related to performance evaluations at the central government level and less so at the local government level.*

DATA & STATISTICAL METHODS

Using data from the third wave of the Life in Transition Surveys (LiTS 2015) from 34 countries—former Communist/Soviet bloc in eastern and southern Europe, the Caucasus, and Central Asia—we empirically evaluate the relationship between perceived levels of public sector corruption and individual level evaluations of government organizational performance. This survey is collected by the European Bank for Reconstruction and Development (EBRD) in conjunction with the World Bank. Each country has a sample of about 1,500 respondents.¹⁾ Details of the Life in Transition Survey, including the survey items, are publicly available via EBRD’s webpage²⁾. To this data set, we append third party macro-level corruption measures to account for country level differential slopes (in addition to aggregate mean country level measures of perceived local officials’ and government officials’ corruption variables—measurement details follow below). Descriptive statistics for the variables in the final analyses are presented in Table 1.

¹⁾ Regarding its sampling strategy, EBRD reports (EBRD 2018) that “The survey was designed in two stages and stratified by geographical region and level of urbanity (urban or rural areas). In the first stage, 50 localities that were selected as part of the second round of the LiTS were revisited, and 25 new localities were drawn from the new sample frames in an attempt to rebalance the old sample based on the updated population information. In the second stage, 20 households were selected with equal probability within each Primary Sampling Unit (PSU). A total of 1,500 interviews per country were completed.”

²⁾ Details of LiTS surveys are available via EBRD’s webpage at:
<https://www.ebrd.com/what-we-do/economic-research-and-data/data/lits.html>.

Table 1: Descriptive Statistics.

Variable	Mean	Std. Dev.	Min	Max
	ALL: N (1 level) = 21,850, N (2 level) = 28.			
Perceived Local Government Performance (LGP)	3.025	0.966	1	5
Perceived Central Government Performance (CGP)	2.743	0.994	1	5
Perceived Local Officials' Corruption (LOC)	2.486	0.872	1	4
Perceived Local Officials' Corruption: None	0.107	0.309	0	1
Perceived Local Officials' Corruption: Some	0.449	0.497	0	1
Perceived Local Officials' Corruption: Most	0.296	0.456	0	1
Perceived Local Officials' Corruption: All	0.148	0.355	0	1
Perceived Government Officials' Corruption (GOC)	2.588	0.863	1	4
Perceived Government Officials' Corruption: None	0.083	0.276	0	1
Perceived Government Officials' Corruption: Some	0.415	0.493	0	1
Perceived Government Officials' Corruption: Most	0.333	0.471	0	1
Perceived Government Officials' Corruption: All	0.169	0.374	0	1
There is less corruption than 4 years ago	2.414	1.157	1	5
Situation with economy better than 4 years ago	2.494	1.177	1	5
Situation with politics better than 4 years ago	2.454	1.155	1	5
Governance quality	2.964	2.702	0	8
Household better than 4 years ago	2.830	1.148	1	5
Respondent's income decile	4.589	1.661	1	10
Urban resident	0.552	0.497	0	1
Female	0.328	0.470	0	1
Age (18-95)	51.454	15.340	18	95
Bachelor's Degree	0.148	0.356	0	1
Country level random slope 1a: LiTS aggregate mean country LOC	2.486	0.319	1.776	2.977
Country level random slope 1b: LiTS aggregate mean country GOC	2.588	0.351	1.682	3.218
Country level random slope 2: Corruption index, World Justice Project (WJP)	0.473	0.124	0.269	0.784
Country level random slope 3: Corruption index, Transparency International (CPI TI)	40.819	11.529	23	69

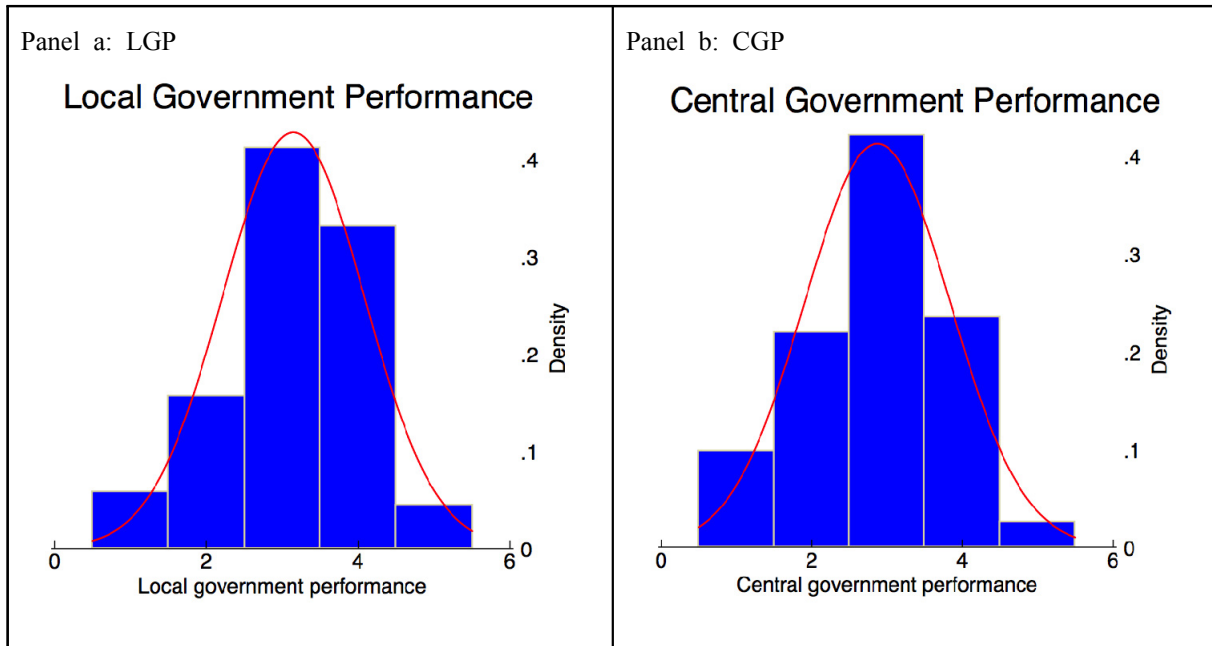
Micro-level: Life in Transition Survey (LiTS 2015), European Bank for Reconstruction and Development (EBRD); Country-level: a corruption index from the World Justice Project (WJP) and a corruption perceptions index from Transparency International (CPI TI).

We omit five countries from this original sample--Cyprus, Germany, Greece, Italy, Turkey, and Uzbekistan. The first four, historically, are not part of the Eastern Bloc (notwithstanding East Germany, which was absorbed into West Germany), while the survey in Uzbekistan does not contain public sector corruption questions, the main explanatory variables in the study. The remaining 28 countries can be roughly classified into three groups or clusters at the time the survey was conducted: Group 1--members of the European Union (EU member: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, and Slovenia); Group 2--Southeast Europe/Balkan countries (SE Europe: Albania, Bosnia and Herzegovina, Croatia, Macedonia, Kosovo, Montenegro, and Serbia); Group 3-- the former Soviet Union constituent parts (Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyz Republic, Moldova, Russia, Tajikistan, Ukraine, Georgia, plus Mongolia). We retain $N = 21,850$ or about 52% of the working sample of 42,196 for the final analysis. Observations with responses that were 1) missing, 2) marked as "Don't know" or "Not applicable", and for corruption measures, 3) marked as "Haven't heard enough to say"--have been excluded.

Outcome Variables

There are two outcome measures of interest that we evaluate in this article. The first one is a respondent's performance evaluation of a local government (LGP), while the second is a respondent's performance evaluation for a central government (CGP). Both items are recorded on a 5-point Likert scale [Very bad = 1; Bad = 2; Neither = 3; Good = 4; Very Good = 5] for a survey item "Please rate the overall performance of [level of government]." The correlation coefficient between LGP and CGP is 0.57, which is a moderate level of correlation, indicative of both convergent and divergent construct measurement of distinct levels of government performance. Figure 1 contains details of survey items and distributions for the two outcomes of interest. It can be seen that the ordinal scale measures are relatively "normally" distributed; and, certainly, they have limited choice sets and are truncated on both ends of the distribution. At the same time, one can review these distributions by country. The figures, presented in the appendix section for three groups of countries sequentially--EU member countries (figures A1a and A2a), SE Europe/Balkans (figures A1b and A2b), and the former Soviet Union (figures A1c and A2c)-- show that there are rather visible between-country variations in the sample.

Figure 1: Distribution of Perceived Levels of Local Government Performance (LGP) and Central Government Performance (CGP) Ratings.

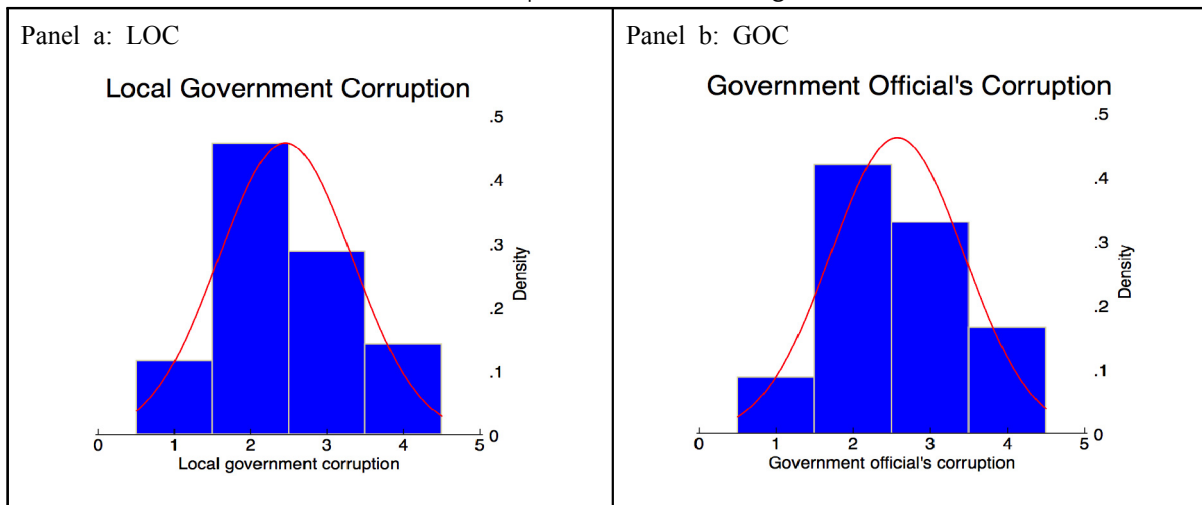


Life in Transition Survey (LiTS 2015), European Bank for Reconstruction and Development (EBRD).
 Final sample size for analysis $N = 21,850$ (52 % of the original sample) from 28 countries.
 Survey items: "Please rate the overall performance of [level of government]." --Very bad = 1; Bad = 2; Neither = 3; Good = 4; Very Good = 5; Correlation between local and central government performance ratings is 0.57.

Main Variables of Interest

We utilize two key test explanatory variables in the study at the individual level. The first one is an evaluation of corruption levels among local officials, while the second is an evaluation of corruption levels among government officials broadly defined. These measures are on a four choice scale [None = 1; Some of them = 2; Most of them = 3; All of them = 4] and are answers to a question "How many of the following people do you think are involved in corruption, or haven't you heard enough about them to say?" We evaluate both the ordered and binary functional form specifications of local official's and government officials' corruption. Distributions for the ordered functional forms are presented in Figure 2.

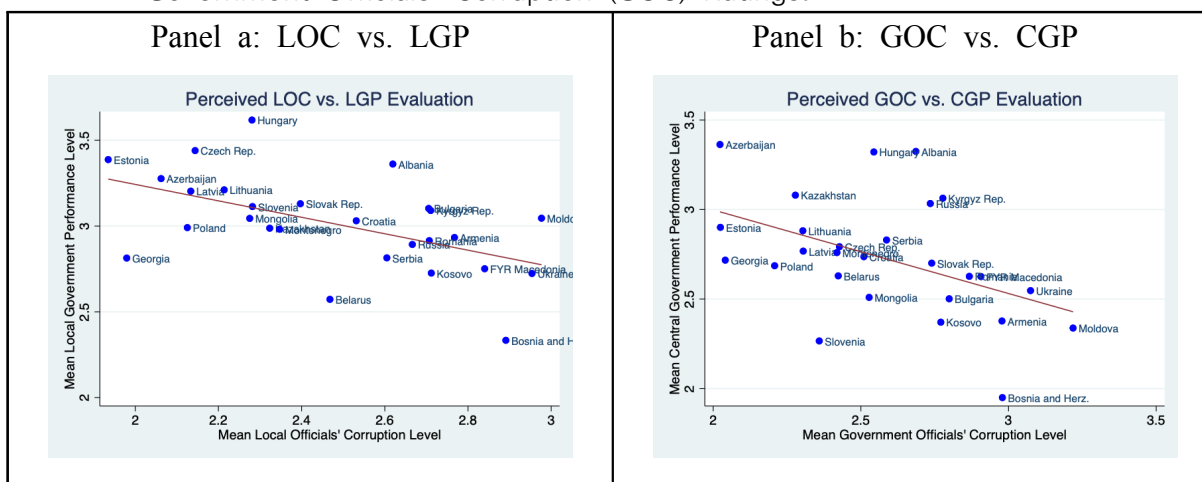
Figure 2: Distribution of Perceived Levels of Local Officials' Corruption (LOC), and Government Officials' Corruption (GOC) Ratings.



Life in Transition Survey (LiTS 2015), European Bank for Reconstruction and Development (EBRD). Survey item: "How many of the following people do you think are involved in corruption, or haven't you heard enough about them to say?"--None = 1; Some of them = 2; Most of them = 3; All of them = 4. Correlation between local officials' and government officials' perceived corruption levels is 0.83.

Based on theoretical framework we outlined above, the expectation is that local official's corruption has a more prominent role for local government performance, while the broader measure of government official's corruption is likely to have a stronger relationship with central government performance. Overall, however, perceptions of both local officials' and government officials' corruption will have an inverse association with local government performance and central government performance, respectively. As binary plots in Figure 3 convey, perceived local officials' corruption (LOC) vs. local government performance (LGP) and perceived government officials' corruption (GOC) vs. central government performance (CGP) exhibit clear negative slopes.

Figure 3: Distribution of Perceived Levels of Local Officials' Corruption (LOC), and Government Officials' Corruption (GOC) Ratings.



Life in Transition Survey (LiTS 2015), European Bank for Reconstruction and Development (EBRD). Depicted points are a mean statistic for each variable at the country level.

At the country level, we rely on three sets of variables in random slopes models. The first pair are constructed from LiTS--aggregate country means for local government officials' and overall government officials' corruption levels, respectively. Two external country level corruption measures are used in addition to LiTS. The two measures are a corruption index from the World Justice Project (WJP)³⁾ and a corruption perceptions index from Transparency International (CPI TI)⁴⁾, both for 2014. From WJP Rule of Law factors, we are interested in the measure of Absence of Corruption, where "The factor considers three forms of corruption: bribery, improper influence, by public or private interests, and misappropriation of public funds or other resources" (WJP 2014). The Corruption Perceptions Index, on the other hand, relies upon a spectrum of surveys for each country in the sample, including WJP items (see details in TI 2014).

Control Variables

There are several control variables that we utilize to ensure proper model specification. The first set is an assessment of how situations with corruption, economy, and politics have changed during the past 4 years. The change in corruption measure is a five choice Likert scale agreement with a statement: "There is less corruption now than around 4 years ago." Two other variables with regards to the economy and politics are five choice responses to a question: "The [economic or political] situation in our country is better today than around 4 years ago." An additional variable is a summation of positive responses to a set of questions with regards to existence of certain governance institutions in the country. The question is: "To what extent do you agree that the following exist in the country?", where the items of interest are Free and fair elections; Law and order; Freedom of speech; Peace and stability; A press that is independent from the government; A strong political opposition; A courts system that treats all citizens equally, rather than favouring some over others; and Equal rights for women as citizens. The answer options are: Strongly disagree = 1; Disagree = 2; Neither disagree nor agree = 3; Agree = 4; and Strongly agree = 5. Therefore, this governance quality measure has a range from 0 (if no

³⁾ The WJP is a global organization working to enhance the rule of law internationally. Their corruption index measure is based on surveys of households and experts. The index ranges between 0 and 1, higher values meaning greater levels of corruption in the country. The corruption index was unavailable for several countries in the LiTS data set. For missing country observations, we assigned the mean regional corruption index where the country was from. Armenia, Azerbaijan, and Tajikistan were assigned the mean corruption index for former Soviet Union countries; Kosovo and Montenegro were assigned the mean corruption index for Balkan countries; and Latvia, Lithuania, and the Slovak Republic were assigned the mean corruption index for EU member countries. More details for WJP measures are available in a report here: <https://worldjusticeproject.org/sites/default/files/documents/RuleofLawIndex2014.pdf>.

⁴⁾ The CPI measure from Transparency International is constructed from a number of surveys in each of the countries they evaluate. WJP's rule of law factors are also incorporated in CPI TI measures. More details for CPI TI 2014 measures are available here: <https://www.transparency.org/cpi2014>.

positive agreement is given) to 8 (if positive agreement, Agree = 4; or Strongly agree = 5, is given to all eight governance items). The expectation is that any positive views regarding the changes in corruption levels, economic or political situations, or the levels of governance quality will translate to positive assessments of government performance.

We also control for a number of individual respondent related variables and demographic features. The first is a self-reported location on a wealth distribution scale in deciles, with options ranging from the 1st decile to the 10th. The second is a five choice response to a question: “My household lives better nowadays than around 4 years ago,” which measures a respondent’s assessment of improvements in their households. Positive responses to these two items are expected to result in positive assessments of government performance. Finally, demographic characteristics may shape respondent evaluations of government performance. We control for whether a respondent lives in an urban area, is a female, their age, and whether an education level is a Bachelor’s degree or higher.

Statistical Models

Given the data structure and distributional features of the outcomes of interest, we estimate linear regression models with country fixed effects, as well as two-level models with country level differential intercepts and differential slopes. The equations we estimate are as follows, while the details of outcome, test, and control variables are discussed next:

$$\text{Government Performance}_i = \beta_0 + \beta_1(\text{officials' corruption})_i + \text{controls}_i + e_i \quad (1)$$

where controls are: individual evaluations of levels of corruption, economy, and politics, compared to four years ago, perceived quality of governance, individual specific characteristics, and country fixed effects. And i and j denote individual respondents and countries, respectively.

The variables in our model have a two-level structure since some of them are individual-level variables but others are country-level variables. In models with multilevel data structure, we utilize a set of two-level mixed effects linear regression models. The models also allow random intercepts and random slopes across countries, which are likely more realistic than models assuming that the intercepts and slopes are fixed (or, the same across different countries). Since we are interested in standard errors at the country level for the differential intercepts and slopes models, we use robust (country-clustered) standard error estimations. This adjusts upwards the (potentially) smaller error coefficients that may be produced by samples smaller than 50 units at the second-level. Note that a sample size at the country-level does not affect the results for fixed coefficients at either level and the

estimates of error terms at the individual-level remain consistent. The approach is in line with mixed effects regression models where individual respondents (i) are nested within countries (j), such that:

$$\begin{aligned} \text{Government Performance}_{ij} &= \gamma_{00} + \gamma_{10}(\text{officials'corruption})_{ij} + \gamma_{1j} \text{controls}_{ij} \\ &+ u_{1j}(\text{officials'corruption})_{ij} + u_{ij} + e_{ij} \end{aligned} \quad (2)$$

where controls at the individual level, nested in countries, are: individual evaluations of levels of corruption, economy, and politics, compared to four years ago, perceived quality of governance, individual specific characteristics;

while competing country level random slopes, when and where appropriately introduced, are: aggregate mean perceived country local officials' corruption, aggregate mean perceived country government officials' corruption, corruption index from the World Justice Project, and the corruption perceptions index from Transparency International.

Note that we also estimated ordered probit and two-level ordered probit regression models for alternative measurement specifications of outcome measures. Since ordered probit models do not change our key conclusions, both in terms of significance and substance, they are omitted for reasons of brevity and (lack of) statistical necessity.

EMPIRICAL RESULTS

Table 2 displays a first set of models which include regression results for the association between perceived Local Officials' Corruption (LOC) with evaluations of Local Government Performance (LGP). Models 1 and 2 are for ordered and categorical functional forms of LOC with country fixed effects, respectively. In model 2, the base category is "All" versus other choices "None", "Some", and "Most". Model 3 is a two-level random intercepts model and model 4 is a two-level random slopes model, where we use mean country LOC at the country level. Models 5 and 6 are two-level random slopes models where country corruption measures are from the World Justice Project and Transparency International, respectively. In all models, the coefficients for perceived levels of local officials' corruption are statistically-significant and negative at 0.1% significance level. Thus, all else equal, individuals that perceive greater levels of corruption among their local officials tend to evaluate the performance of local governments lower.

Table 2: Perceived Local Government Performance (LGP) & Perceived Local Officials' Corruption (LOC), country fixed effects, random intercept, and random slopes models.

Table 2: Perceived local government performance & local official's corruption; N (1 level) = 21850, N (2 level) = 28.

Variables	Model 1 LGP-LOC FE	Model 2 LGP-LOC (categorical) FE	Model 3 LGP-LOC Random Intercepts	Model 4 LGP-LOC Random Slopes-mean country LOC	Model 5 LGP-LOC Random Slopes-WJP	Model 6 LGP-LOC Random Slopes-CPI TI
Perceived Local Officials' Corruption	-0.253*** (12.17)		-0.253*** (-12.16)	-0.253*** (12.17)	-0.253*** (-12.16)	-0.253*** (-12.16)
Perceived Local Officials' Corruption: None		0.785*** (15.82)				
Perceived Local Officials' Corruption: Some		0.464*** (7.91)				
Perceived Local Officials' Corruption: Most		0.218*** (5.13)				
There is less corruption than 4 years ago	0.0453*** (4.29)	0.0450*** (4.21)	0.0449*** (4.24)	0.0449*** (4.23)	0.0450*** (4.23)	0.0450*** (4.23)
Situation with economy better than 4 years ago	0.0447** (3.45)	0.0447** (3.46)	0.0452*** (3.53)	0.0453*** (3.54)	0.0452*** (3.53)	0.0452*** (3.53)
Situation with politics better than 4 years ago	0.0325* (2.28)	0.0329* (2.32)	0.0322* (2.27)	0.0322* (2.27)	0.0322* (2.27)	0.0322* (2.27)
Governance quality	0.0500*** (8.09)	0.0492*** (7.97)	0.0500*** (8.14)	0.0500*** (8.15)	0.0499*** (8.13)	0.0500*** (8.14)
Household better than 4 years ago	0.0285+ (2.04)	0.0285+ (2.05)	0.0284* (2.04)	0.0284* (2.04)	0.0284* (2.04)	0.0284* (2.04)
Respondent's income decile	0.0358*** (4.38)	0.0357*** (4.39)	0.0357*** (4.34)	0.0357*** (4.35)	0.0357*** (4.34)	0.0357*** (4.34)
Urban resident	-0.0576 (-1.67)	-0.0554 (-1.63)	-0.0572+ (-1.66)	-0.0570+ (-1.66)	-0.0574+ (-1.67)	-0.0574+ (-1.67)
Female	0.0213 (1.12)	0.0207 (1.08)	0.0213 (1.12)	0.0213 (1.11)	0.0212 (1.11)	0.0213 (1.11)
Age (18-95)	0.00193** (2.92)	0.00190** (2.87)	0.00195** (2.95)	0.00194** (2.95)	0.00195** (2.95)	0.00195** (2.95)
Bachelor's Degree	-0.0176 (-0.75)	-0.0161 (-0.69)	-0.0174 (-0.74)	-0.0176 (-0.75)	-0.0171 (-0.73)	-0.0172 (-0.73)
Country FE	Yes	Yes	n/a	n/a	n/a	n/a
Respondent level constant	3.210*** (33.33)	2.232*** (19.09)	2.887*** (29.60)	2.889*** (29.25)	2.891*** (29.88)	2.883*** (29.89)
Country level random intercept			-1.489*** (-10.73)	-2.520** (-3.16)	-1.217 (-1.64)	-5.934** (-3.03)
Country level random error			-0.153*** (-4.41)	-0.152*** (-4.41)	-0.153*** (-4.41)	-0.153*** (-4.41)
Country level random slope 1: LITS aggregate mean LOC				-2.2260 (-0.88)		
Country level random slope 2: Corruption index, WJP					-1.779** (-3.25)	
Country level random slope 3: Corruption index, CPI TI						-1.638* (-2.44)
AIC	55337.30	55326.60	55482.50	55484.10	55484.00	55484.40
BIC	55425.20	55430.50	55594.40	55604.00	55603.90	55604.30
Log-likelihood	-27657.60	-27650.30	-27727.30	-27727.00	-27727.00	-27727.20

t statistics in parentheses; + p<0.10, * p<0.05, ** p<0.01, *** p<0.001; country-robust standard errors;

"Perceived Local Officials' Corruption: All" is the omitted category; LGP = Local Government Performance;

LOC = Local Officials' Corruption.

We next replicate models 1 through 6, but include perceived Government Officials' Corruption (GOC) instead of perceived Local Officials' Corruption (LOC). This second set of results is in table 3 for models 7 through 12. Regression results show that perceived levels of corruption among government officials, where GOC is a broader measure than

LOC, are inversely associated with evaluations of local government performance. The coefficients are statistically significant at 0.1% significance level. The magnitude of coefficients for GOC (-0.194), however, is substantively smaller than the size of coefficients for LOC (-0.253). Therefore, the empirical results from models 1 to 12 lend support to the first set of formal hypotheses.

Table 3: Perceived Local Government Performance (LGP) & Perceived Government Officials' Corruption (GOC), country fixed effects, random intercept, and random slopes models.

	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Variables	LGP-GOC FE	LGP-GOC (categorical) FE	LGP-GOC Random Intercepts	LGP-GOC Random Slopes-mean country GOC	LGP-GOC Random Slopes-WJP	LGP-GOC Random Slopes-CPI TI
Perceived Government Officials' Corruption	-0.194*** (-11.06)		-0.194*** (-11.06)	-0.194*** (-11.07)	-0.194*** (-11.06)	-0.194*** (-11.06)
Perceived Government Officials' Corruption: None		0.617*** (12.61)				
Perceived Government Officials' Corruption: Some		0.376*** (7.69)				
Perceived Government Officials' Corruption: Most		0.203*** (5.01)				
There is less corruption than 4 years ago	0.0433*** (4.15)	0.0430*** (4.08)	0.0429*** (4.10)	0.0428*** (4.09)	0.0430*** (4.10)	0.0429*** (4.10)
Situation with economy better than 4 years ago	0.0458** (3.23)	0.0461** (3.25)	0.0464*** (3.30)	0.0465*** (3.31)	0.0463*** (3.29)	0.0464*** (3.30)
Situation with politics better than 4 years ago	0.0313* (2.13)	0.0311* (2.12)	0.0309* (2.12)	0.0309* (2.12)	0.0310* (2.12)	0.0310* (2.12)
Governance quality	0.0526*** (8.46)	0.0524*** (8.52)	0.0526*** (8.51)	0.0527*** (8.52)	0.0526*** (8.50)	0.0526*** (8.51)
Household better than 4 years ago	0.0311* (2.24)	0.0309* (2.25)	0.0310* (2.24)	0.0310* (2.25)	0.0310* (2.24)	0.0310* (2.24)
Respondent's income decile	0.0354*** (4.27)	0.0353*** (4.25)	0.0352*** (4.23)	0.0352*** (4.24)	0.0352*** (4.23)	0.0352*** (4.23)
Urban resident	-0.0683+ (-1.83)	-0.0683+ (-1.83)	-0.0679+ (-1.82)	-0.0679+ (-1.82)	-0.0681+ (-1.83)	-0.0682+ (-1.83)
Female	0.0186 (0.95)	0.0182 (0.94)	0.0187 (0.96)	0.0186 (0.95)	0.0186 (0.95)	0.0186 (0.95)
Age (18-95)	0.00210** (3.18)	0.00211** (3.17)	0.00212** (3.22)	0.00212** (3.22)	0.00212** (3.22)	0.00212** (3.22)
Bachelor's Degree	-0.0206 (-0.84)	-0.0195 (-0.80)	-0.0203 (-0.83)	-0.0204 (-0.83)	-0.0200 (-0.82)	-0.0200 (-0.82)
Country FE	Yes	Yes	n/a	n/a	n/a	n/a
Respondent level constant	-3.578*** (-14.73)	-2.833*** (-10.96)	2.753*** (31.78)	2.748*** (31.69)	2.755*** (31.90)	2.745*** (32.12)
Country level random intercept			-1.438*** (-10.42)	-2.376*** (-17.59)	-1.072 (-1.63)	-5.732** (-3.24)
Country level random error			-0.140*** (-4.11)	-0.140*** (-4.11)	-0.140*** (-4.11)	-0.140*** (-4.11)
Country level random slope 1: LITS aggregate mean GOC				-7.03 (-0.12)		
Country level random slope 2: Corruption index, WJP					-1.812** (-2.76)	
Country level random slope 3: Corruption index, CPI TI						-1.649+ (-1.85)
AIC	55867.40	55866.30	56014.90	56016.10	56016.20	56016.70
BIC	55955.40	55970.20	56126.80	56136.00	56136.10	56136.60
Log-likelihood	-27922.70	-27920.20	-27993.40	-27993.00	-27993.10	-27993.30

t statistics in parentheses; + p<0.10, * p<0.05, ** p<0.01, *** p<0.001; country-robust standard errors;

"Perceived Government Officials' Corruption: All" is the omitted category; LGP = Local Government Performance;

GOC = Government Officials' Corruption.

A third set of models presents regression results for the association between perceived Local Officials' Corruption (LOC) with evaluations of Central Government Performance (CGP). In effect, this set is also a replication of models 1 through 6, but swapping the outcome of interest from evaluations of local government performance to evaluations of central government performance. Regression results for models 13 through 18 are presented in Table 4. These regression results, all significant at 0.1% level, show a consistent negative association between perceived levels of corruption among local officials and evaluations of central government performance.

Table 4: Perceived Central Government Performance (CGP) & Perceived Local Officials' Corruption (LOC), country fixed effects, random intercept, and random slopes models.

Table 4: Perceived central government performance & local official's corruption; N (1 level) = 21850, N (2 level) = 28.

Variables	Model 13 CGP-LOC FE	Model 14 CGP-LOC (categorical) FE	Model 15 CGP-LOC Random Intercepts	Model 16 CGP-LOC Random Slopes-mean country LOC	Model 17 CGP-LOC Random Slopes-WJP	Model 18 CGP-LOC Random Slopes-CPI TI
Perceived Local Officials' Corruption	-0.184*** (-9.56)		-0.184*** (-9.59)	-0.184*** (-9.59)	-0.184*** (-9.59)	-0.184*** (-9.59)
Perceived Local Officials' Corruption: None		0.554*** (9.72)				
Perceived Local Officials' Corruption: Some		0.365*** (7.31)				
Perceived Local Officials' Corruption: Most		0.183*** (4.87)				
There is less corruption than 4 years ago	0.0773*** (7.95)	0.0773*** (7.93)	0.0775*** (7.92)	0.0775*** (7.92)	0.0775*** (7.92)	0.0775*** (7.90)
Situation with economy better than 4 years ago	0.0671*** (5.40)	0.0671*** (5.40)	0.0671*** (5.42)	0.0671*** (5.42)	0.0671*** (5.42)	0.0671*** (5.42)
Situation with politics better than 4 years ago	0.114*** (5.86)	0.114*** (5.88)	0.115*** (5.91)	0.115*** (5.91)	0.115*** (5.91)	0.115*** (5.91)
Governance quality	0.0596*** (11.11)	0.0596*** (10.99)	0.0596*** (11.12)	0.0596*** (11.12)	0.0596*** (11.12)	0.0596*** (11.12)
Household better than 4 years ago	0.01900 (1.56)	0.01900 (1.56)	0.01880 (1.54)	0.01880 (1.54)	0.01880 (1.54)	0.01880 (1.54)
Respondent's income decile	0.0242** (2.90)	0.0242** (2.91)	0.0241** (2.87)	0.0241** (2.87)	0.0241** (2.87)	0.0241** (2.87)
Urban resident	-0.0055 (-0.30)	-0.0054 (-0.29)	-0.0050 (-0.27)	-0.0050 (-0.27)	-0.0050 (-0.27)	-0.0050 (-0.27)
Female	0.0561** (2.80)	0.0561** (2.81)	0.0555** (2.76)	0.0555** (2.76)	0.0555** (2.76)	0.0555** (2.76)
Age (18-95)	0.00156* (2.21)	0.00156* (2.21)	0.00155* (2.21)	0.00155* (2.21)	0.00155* (2.21)	0.00155* (2.21)
Bachelor's Degree	-0.0188 (-0.90)	-0.0187 (-0.91)	-0.0191 (-0.92)	-0.0191 (-0.92)	-0.0191 (-0.92)	-0.0191 (-0.92)
Country FE	Yes	Yes	n/a	n/a	n/a	n/a
Respondent level constant	2.640*** (24.62)	1.907*** (14.97)	2.139*** (19.65)	2.139*** (19.65)	2.139*** (19.65)	2.139*** (19.65)
Country level random intercept			-1.418*** (-9.63)	-7.750*** (-32.44)	-8.900 (-0.21)	-12.990 (-0.36)
Country level random error			-0.187*** (-5.99)	-0.187*** (-5.99)	-0.187*** (-5.99)	-0.187*** (-5.99)
Country level random slope 1: LiTS aggregate mean LOC				-1.418*** (-9.63)		
Country level random slope 2: Corruption index, WJP					-1.418*** (-9.62)	
Country level random slope 3: Corruption index, CPI TI						-1.418*** (-9.62)
AIC	53825.10	53829.10	53976.20	53978.20	53978.20	53978.20
BIC	53913.10	53933.00	54088.10	54098.10	54098.10	54098.10
Log-likelihood	-26901.60	-26901.50	-26974.10	-26974.10	-26974.10	-26974.10

t statistics in parentheses; + p<0.10, * p<0.05, ** p<0.01, *** p<0.001; country-robust standard errors;

"Perceived Local Officials' Corruption: All" is the omitted category; CGP = Central Government Performance;

LOC = Local Officials' Corruption.

Finally, the fourth set of regression models are replications of models 13 through 18, but we now focus on the association between perceived overall Government Officials' Corruption (GOC) and evaluations of Central Government Performance (CGP). Table 5 displays regression results for models 19 through 24. The results show a negative association between perceived levels of corruption among government officials and evaluations of central government performance, all statistically significant at 0.1% level. It is also noteworthy that the magnitude of coefficients for GOC (-0.225 and -0.224) in models 19 through 25 are substantively larger than those for LOC (-0.184). Consequently, the results from models 13 to 25 offer support in favor of the second set of formal hypotheses.

Table 5: Perceived Central Government Performance (CGP) & Perceived Government Officials' Corruption (GOC), country fixed effects, random intercept, and random slopes models.

	Model 19	Model 20	Model 21	Model 22	Model 23	Model 24
Variables	CGP-GOC FE	CGP-GOC (categorical) FE	CGP-GOC Random Intercepts	CGP-GOC Random Slopes-mean country LOC	CGP-GOC Random Slopes WJP	CGP-GOC Random Slopes CPI TI
Perceived Government Officials' Corruption	-0.225*** (-10.38)		-0.224*** (-10.43)	-0.224*** (-10.43)	-0.224*** (-10.43)	-0.224*** (-10.43)
Perceived Government Officials' Corruption: None		0.688*** (11.40)				
Perceived Government Officials' Corruption: Some		0.428*** (7.82)				
Perceived Government Officials' Corruption: Most		0.195*** (4.70)				
There is less corruption than 4 years ago	0.0708*** (7.83)	0.0704*** (7.69)	0.0710*** (7.81)	0.0710*** (7.81)	0.0710*** (7.81)	0.0710*** (7.81)
Situation with economy better than 4 years ago	0.0664*** (5.27)	0.0665*** (5.25)	0.0665*** (5.29)	0.0665*** (5.29)	0.0665*** (5.29)	0.0665*** (5.29)
Situation with politics better than 4 years ago	0.108*** (5.95)	0.108*** (5.93)	0.109*** (6.01)	0.109*** (6.01)	0.109*** (6.01)	0.109*** (6.01)
Governance quality	0.0571*** (11.26)	0.0565*** (11.36)	0.0570*** (11.27)	0.0570*** (11.27)	0.0570*** (11.27)	0.0570*** (11.27)
Household better than 4 years ago	0.0196 (1.61)	0.0196 (1.62)	0.0194 (1.59)	0.0194 (1.59)	0.0194 (1.59)	0.0194 (1.59)
Respondent's income decile	0.0242** (2.87)	0.0242** (2.87)	0.0241** (2.85)	0.0241** (2.85)	0.0241** (2.85)	0.0241** (2.85)
Urban resident	-0.0101 (-0.56)	-0.0098 (-0.54)	-0.0096 (-0.53)	-0.0096 (-0.53)	-0.0096 (-0.53)	-0.0096 (-0.53)
Female	0.0532* (2.73)	0.0527* (2.71)	0.0526** (2.69)	0.0526** (2.69)	0.0526** (2.69)	0.0526** (2.69)
Age (18-95)	0.00150* (2.19)	0.00149* (2.17)	0.00150* (2.19)	0.00150* (2.19)	0.00150* (2.19)	0.00150* (2.19)
Bachelor's Degree	-0.0257 (-1.20)	-0.0252 (-1.20)	-0.0260 (-1.22)	-0.0260 (-1.22)	-0.0260 (-1.22)	-0.0260 (-1.22)
Country FE	Yes	Yes	n/a	n/a	n/a	n/a
Respondent level constant	2.814*** (30.47)	1.938*** (15.12)	2.307*** (24.54)	2.307*** (24.54)	2.310*** (24.58)	2.309*** (24.58)
Country level random intercept			-1.421*** (-9.43)	-8.323 (-0.14)	-2.0610 (-0.35)	-6.734 (-1.27)
Country level random error			-0.193*** (-6.14)	-0.193*** (-6.14)	-0.193*** (-6.14)	-0.193*** (-6.14)
Country level random slope 1: LiTS aggregate mean GOC				-1.421*** (-9.43)		
Country level random slope 2: Corruption index, WJP					-1.458** (-3.02)	
Country level random slope 3: Corruption index, CPI TI						-1.444*** (-4.90)
AIC	53568.60	53566.90	53719.90	53721.90	53721.90	53721.90
BIC	53656.50	53670.80	53831.70	53841.70	53841.70	53841.70
Log-likelihood	-26773.30	-26770.40	-26845.90	-26845.90	-26845.90	-26845.90

t statistics in parentheses; + p<0.10, * p<0.05, ** p<0.01, *** p<0.001; country-robust standard errors;

"Perceived Government Officials' Corruption: All" is the omitted category; CGP = Central Government Performance; GOC = Government Officials' Corruption.

Overall, we find statistically significant evidence that corruption will have a negative association with perceived levels of organizational performance, both at local and central government levels. However, our expectation that evaluations of corruption levels at the local level will have the greatest association with perceived local government performance and less so with perceived central government performance, all else equal, is also confirmed. Simultaneously, we find that individual evaluations of (broader) overall government officials' corruption levels will have the greatest association with perceived central government performance and less so with perceived local government performance.

Country level random slopes are generally negative and significant. The only exceptions are the coefficients for mean perceived country level government corruption measures (LOC and GOC) generated from LiTS items. This is possible because all explanatory power may have already been drawn out at the individual level analysis from the same survey. The external measures of country level corruption from WJP and TI are, however, both negative and statistically significant. This is an interesting finding and the implication will be discussed further in the next section. The results appear to suggest that the negative relationship between perceived levels of public corruption and evaluations of organizational performance are weaker in relatively more corrupt contexts. That is, the association between public corruption and perceived organizational performance is stronger in countries with lower levels of corruption, as measured by WJP and TI indices. This association is particularly consistent and strong for evaluations of central government performance.

Control variables perform as expected in all models. Overall, the results appear to suggest that there is a positive association between respondents' assessment of (positive) changes in levels of corruption, economy, or politics compared to four years ago and the perceived levels of both local and central government performance. Respondents that report higher levels of governance quality also tend to assign higher organizational performance scores. Finally, all else equal, respondents with higher incomes, female respondents, and younger respondents evaluate local and central government performance levels more positively.

DISCUSSION AND IMPLICATIONS

Countries in transition can offer lessons for both developed and developing countries—be it efficiencies through e-governance in Estonia offering relevant lessons for other European Union members or lessons from a success story in the Republic of Georgia to other emerging countries in the region and around the world. Numerous reforms have been initiated to tackle public sector corruption in this region of the world. Overall, we find statistically significant evidence that corruption will have a negative association with perceived levels of organizational performance, both at local and central government levels. Moreover, our expectation that evaluations of corruption levels at the local level will have the greatest association with perceived local government performance and less so with perceived central government performance, all else equal, is also confirmed. Simultaneously, we find that individual evaluations of (broader) overall government officials' corruption levels will have the greatest association with perceived central government performance and less so with perceived local government performance. This is important because individuals appear to be able to differentiate between the levels of government and assign 'blame' to an appropriate level. This results correspond with Beerli and Navot's (2013) position that the association between corruption and key governance outcomes is nuanced, with central-local, local-central, and local-local level variances.

The results appear to further suggest that the negative relationship between perceived levels of public corruption and evaluations of organizational performance are weaker in relatively more corrupt contexts. That is, the association between public corruption and perceived organizational performance is stronger in countries with lower levels of corruption, as measured by WJP and TI indices. This association is particularly consistent and strong for evaluations of central government performance. It is possible that in the most corrupt contexts, government performance is perceived to be weak due to lower levels of legitimacy of and trust toward public institutions (Anderson and Tverdova 2003; Borzel and van Hullen 2014; Collins and Gambrel 2017; Pellegata and Memoli 2016; Seligson 2002, Villoria et al. 2012) or because individuals are more likely to benefit from clientelist networks and, thus, be more tolerant of malfeasance (Chang and Kerr 2017).

Alternatively, it could be Warren's (2004) intuition that, in more democratic states, corruption is an indicator for lack of democracy, where government performance could capture the facets of democratic underperformance and non-responsiveness. Empirical evidence from developed and developing contexts indeed shows that public corruption is

negatively related to democratic legitimacy or support and participation in democratic governance (Linde and Erlingsson 2012; Enste and Acht 2018; Neshkova and Kalesnikaite 2019) In less democratic countries this blurring may not necessarily exist, hence explaining the weaker link between public sector corruption and organizational performance. The relationship between perceived levels of public corruption and evaluations of organizational performance in contexts with vastly varying levels of legitimacy and trust, clientelism, or democracy is beyond the scope of this work, however. We call on future studies to disentangle this puzzle more closely.

Finally, as with other research on public sector corruption, this study is not without its limitations. Summary of cross-national empirical research on measurement and the causes of corruption reveals that perceptions of corruption may not always correlate with actual experiences or incidences of corruption (Andersson and Heywood 2009; Knack 2006; Ko and Samajdar's 2010; Treisman's 2007). However, individuals routinely evaluate the performance of public sector organizations, which in turn will have significant associations with their support of and engagement with institutions of governance. In this regard, linking perceived levels of corruption to evaluations of organizational performance goes beyond an academic exercise and has real policy implications. Moreover, elected officials both in developed and developing contexts need to account for citizen perceptions and orientations as these are critical in building support for policies and governance processes at all levels of government.

References

- Abed, George T., and Sanjeev Gupta. 2002. Governance, Corruption, and Economic Performance. International Monetary Fund.
- Anderson, Christopher J., and Yuliya V. Tverdova. 2003. "Corruption, Political Allegiances, and Attitudes toward Government in Contemporary Democracies." *American Journal of Political Science* 47 (1): 91.
- Andersson, Staffan, and Paul M. Heywood. 2009. "The Politics of Perception: Use and Abuse of Transparency International's Approach to Measuring Corruption." *Political Studies* 57 (4): 746–767.
- Baimenov, Alikhan, and Saltanat Liebert. 2019. "Governance in the Post-Soviet Era: Challenges and Opportunities." *Public Administration Review*. <https://doi.org/10.1111/puar.13014>.
- Barrett, Liz. 2000. "Corruption in Eastern Europe." Centre for European Reform. <https://www.cer.eu/publications/archive/bulletin-article/2000/corruption-eastern-europe>.
- Beer, Itai, and Doron Navot. 2013. "Local Political Corruption: Potential Structural Malfunctions at the Central-local, Local-local and Intra-Local Levels." *Public Management Review* 15 (5): 712–39.
- Borzel, Tanja A., and Vera van Hullen. 2014. "State-Building and the European Union's Fight

- against Corruption in the Southern Caucasus: Why Legitimacy Matters.” *Governance* 27 (4): 613–634.
- Chang, Eric C.C., and Nicholas N. Kerr. 2017. “An Insider-Outsider Theory of Popular Tolerance for Corrupt Politicians.” *Governance* 30 (1): 67–84.
- Clausen, Bianca, Aart Kraay, and Zsolt Nyiri. 2010. “Corruption And Confidence In Public Institutions: Evidence From A Global Survey.” Policy Research Working Papers. <https://doi.org/10.1596/1813-9450-5157>.
- Collins, Kathleen, and Robert Gambrel. 2017. “Corruption and Popular Support for Democracy and Government in Transitional Contexts: The Case of Kyrgyzstan.” *Europe-Asia Studies* 69 (8): 1280–1309.
- EBRD. 2018. “EBRD Life in Transition Survey (LITS).” 2018. <https://www.ebrd.com/what-we-do/economic-research-and-data/data/lits.html>.
- Ehrlich, Isaac, and Francis T. Lui. 1999. “Bureaucratic Corruption and Endogenous Economic Growth.” *Journal of Political Economy* 107 (S6): S270–93.
- Enste, Dominik, and Martin Acht. 2018. “Democratic Support and Corruption.” Koln: Institut der Deutschen Wirtschaft.
- Folz, David. 1996. *Survey Research for Public Administration*. Sage.
- Glaser, Mark A., and Robert B. Denhardt. 2000. “Local Government Performance through the Eyes of Citizens.” *Journal of Public Budgeting, Accounting & Financial Management* 12 (1): 49–73.
- Goel, Rajeev K., and Michael A. Nelson. 2011. “Government Fragmentation versus Fiscal Decentralization and Corruption.” *Public Choice* 148 (3-4): 471–90.
- Graycar, Adam, and Diego Villa. 2011. “The Loss of Governance Capacity through Corruption.” *Governance* 24 (3): 419–438.
- Hazell, Robert, Gabrielle Bourke, and Benjamin Worthy. 2012. Open House? Freedom of Information and Its Impact on the UK Parliament. *Public Administration* 90 (4): 901–921.
- Holmes, Leslie. 2003. “Political Corruption in Central and Eastern Europe.” In *Corruption in Contemporary Politics*, edited by Newell J. L. Bull M. J., 193–206. Palgrave.
- Holmes, Leslie. 2006. *Rotten States? Corruption, Post-Communism, and Neoliberalism*. Durham, NC: Duke University Press.
- Ingrams, Alex, and Hindy Lauer Schachter. 2019. “E-participation Opportunities and the Ambiguous Role of Corruption: A Model of Municipal Responsiveness to Sociopolitical Factors.” *Public Administration Review* 79 (4): 601–611.
- Ivanov, Alexey. 2013. “Anti-Corruption Policy and Legal Regulations for Counteracting Corruption in Georgia.” *Law and Modern States* 4: 50–56.
- Kickert, Walter. 2011. “Distinctiveness of Administrative Reform in Greece, Italy, Portugal, and Spain. Common Characteristics of Context, Administrations and Reforms.” *Public Administration* 89 (3): 801–818.
- Knack, Stephen. 2006. “Measuring Corruption in Eastern Europe and Central Asia: A Critique of the Cross-Country Indicators.” World Bank Policy Research Paper WPS3968.
- Ko, Kilkon, and Ananya Samajdar. 2010. “Evaluation of International Corruption Indexes: Should We Believe Them or Not?” *The Social Science Journal* 47 (3): 508–40.
- Lancaster, Thomas D., and Gabriella R. Montinola. 2001. “Comparative Political Corruption: Issues of Operationalization and Measurement.” *Studies in Comparative International Development* 36 (3): 3–28.
- Lee, Geon, Jennifer Benoit-Bryan, and Timothy P. Johnson. 2012. “Survey Research in Public Administration: Assessing Mainstream Journals with a Total Survey Error Framework.” *Public Administration Review* 72 (1): 87–97.
- Linde, Jonas, and Gissur O. Erlingsson. 2013. “The Eroding Effect of Corruption on System Support in Sweden.” *Governance* 26 (4): 585–603.
- Liu, Cheol, and John L. Mikesell. 2014. “The Impact of Public Officials’ Corruption on the Size and Allocation of U.S. State Spending.” *Public Administration Review* 74 (3): 346–59.
- Liu, Cheol, and John L. Mikesell. 2019. “Corruption and Tax Structure in American States.” *The American Review of Public Administration* 49 (5): 585–600.
- Liu, Cheol, Tima T. Moldogaziev, and John L. Mikesell. 2017. “Corruption and State and Local Government Debt Expansion.” *Public Administration Review* 77 (5): 681–90.

- Mauro, Paolo. 1995. "Corruption and Growth." *Quarterly Journal of Economics* 110 (3): 681-712.
- Meyer-Sahling, Jan-Hinrik, Kim Sass Mikkelsen, and Christian Schuster. 2018. "Civil Service Management and Corruption: What We Know and What We Don't." *Public Administration* 96(2): 276-285.
- Mizrahi, Sholomo, and Yizhaq Minchuk. 2019. "Accountability and Performance Management: Citizens' Willingness to Monitor Public Officials." *Public Management Review* 21 (3): 334-353.
- Moldogaziev, Tima T., Cheol Liu, and Martin J. Luby. 2017. "Public Corruption in the U.S. States and Its Impact on Public Debt Pricing." *Kyklos* 70 (2): 306-29.
- Nasuti, Peter. 2016. "Administrative Cohesion and Anti-Corruption Reforms in Georgia and Ukraine." *Europe-Asia Studies* 68 (5): 847-67.
- Navot, Doron. 2014. "The Concept of Political Corruption." *Public Integrity* 16 (4): 357-74.
- OECD. 2005. "Managing Conflict of Interest in the Public Sector: A Toolkit." Organization for Economic Cooperation and Development. <https://www.oecd.org/gov/ethics/49107986.pdf>.
- Page, Benjamin I., and Robert Y. Shapiro. 1983. "Effects of Public Opinion on Policy." *American Political Science Review* 77 (1): 175-90.
- Pashev, Konstantin V. 2011. "Corruption and Accession." *Public Management Review* 13 (3): 409-432.
- Payne, Stanley Le Baron. 2014. *The Art of Asking Questions*. Princeton University Press.
- Pellegata, Alessandro, and Vincenzo Memoli. 2016. "Can Corruption Erode Confidence in Political Institutions Among European Countries? Comparing the Effects of Different Measures of Perceived Corruption." *Social Indicators Research* 128 (1): 391-412.
- Pellegata, Alessandro, and Vincenzo Memoli. 2018. "Corruption and Satisfaction with Democracy: The Conditional Role of Electoral Disproportionality and Ballot Control." *European Political Science Review* 10 (3): 393-416.
- Pellegrini, Lorenzo, and Reyer Gerlagh. 2004. "Corruption's Effect on Growth and Its Transmission Channels." *Kyklos* 57 (3): 429-56.
- Percy, Stephen L. 1986. "In Defense of Citizen Evaluations as Performance Measures." *Urban Affairs Quarterly* 22 (1): 66-83.
- Porumbescu, Gregory A. 2016. "Placing the Effect? Gleaning Insights into the Relationship between Citizens' Use of E-government and Trust in Government." *Public Management Review* 18 (10): 1504-1535.
- Resh, William, Tima Moldogaziev, Sergio Fernandez, and Colin Anguss Leslie. 2019. "Reversing the Lens: Assessing the Use of Federal Employee Viewpoint Survey in Public Administration Research." *Review of Public Personnel Administration*, 0734371X1986501.
- Rose-Ackerman, Susan. 1999. *Corruption and Government: Causes, Consequences, and Reform*. Cambridge University Press.
- Rosell, Jordi, and Angel Saz-Carranza. 2019. "Determinants of Public-Private Partnership Policies." *Public Management Review*. DOI: 10.1080/14719037.2019.1619816.
- Schmidt-Pfister, Diana, and Holger Moroff. 2013. *Fighting Corruption in Eastern Europe: A Multilevel Perspective*. Routledge.
- Shleifer, A., and R. W. Vishny. 1993. "Corruption." *The Quarterly Journal of Economics* 108 (3): 599-617.
- Thaler, Julia, and Bernd Helmig. 2015. "Do Codes of Conduct and Ethical Leadership Influence Public Employees' Attitudes and Behaviors? An Experimental Analysis." *Public Management Review* 18 (9): 1365-1399.
- TI. 2014. "How Corrupt Is Your Country? The 2014 Corruption Perceptions Index." Transparency International. <https://www.transparency.org/cpi2014/infographic>.
- TI. 2018. "Transparency International - What Is Corruption?" 2018. <https://www.transparency.org/what-is-corruption#define>.
- Treisman, Daniel. 2007. "What Have We Learned About the Causes of Corruption from Ten Years of Cross-National Empirical Research?" *Annual Review of Political Science* 10 (1): 211-44.
- Van Ryzin, Gregg G. 2015. "Service Quality, Administrative Process, and Citizens' Evaluation of Local Government in the US." *Public Management Review* 17 (3): 425-42.
- Villoria, Manuel, Gregg G. Van Ryzin, and Cecilia F. Lavena. 2013. "Social and Political

- Consequences of Administrative Corruption: A Study of Public Perceptions in Spain.” *Public Administration Review* 73 (1): 85–94.
- Vyas, Lina, Chan Su Jung, and Ahmed Shafiqul Huque. 2013. “Challenges for Public Service Capacity and the Role of Public Employee Training as a Moderator in India.” *Public Management Review* 15 (8): 1116–1136.
- Wallace, Claire, and Rossalina Latcheva. 2006. “Economic Transformation Outside the Law: Corruption, Trust in Public Institutions and the Informal Economy in Transition Countries of Central and Eastern Europe.” *Europe-Asia Studies* 58 (1): 81–102.
- Warren, Mark E. 2004. “What Does Corruption Mean in a Democracy?” *American Journal of Political Science* 48 (2): 328.
- WJP. 2014. “The World Justice Project Rule of Law Index.” The World Justice Project. <https://worldjusticeproject.org/sites/default/files/documents/RuleofLawIndex2014.pdf>.
- Wlezien, Christopher, and Stuart N. Soroka. 2016. “Public Opinion and Public Policy.” In *Oxford Research Encyclopedia of Politics*.
- Zurnić, Marija. 2019. *Corruption and Democratic Transition in Eastern Europe*. Springer.

APPENDIX

Figure A1a: Distribution of Perceived Local Government Performance (LGP) by country--EU member countries. Survey item: “Please rate the overall performance of [level of government].”--Very bad = 1; Bad = 2; Neither = 3; Good = 4; Very Good = 5.

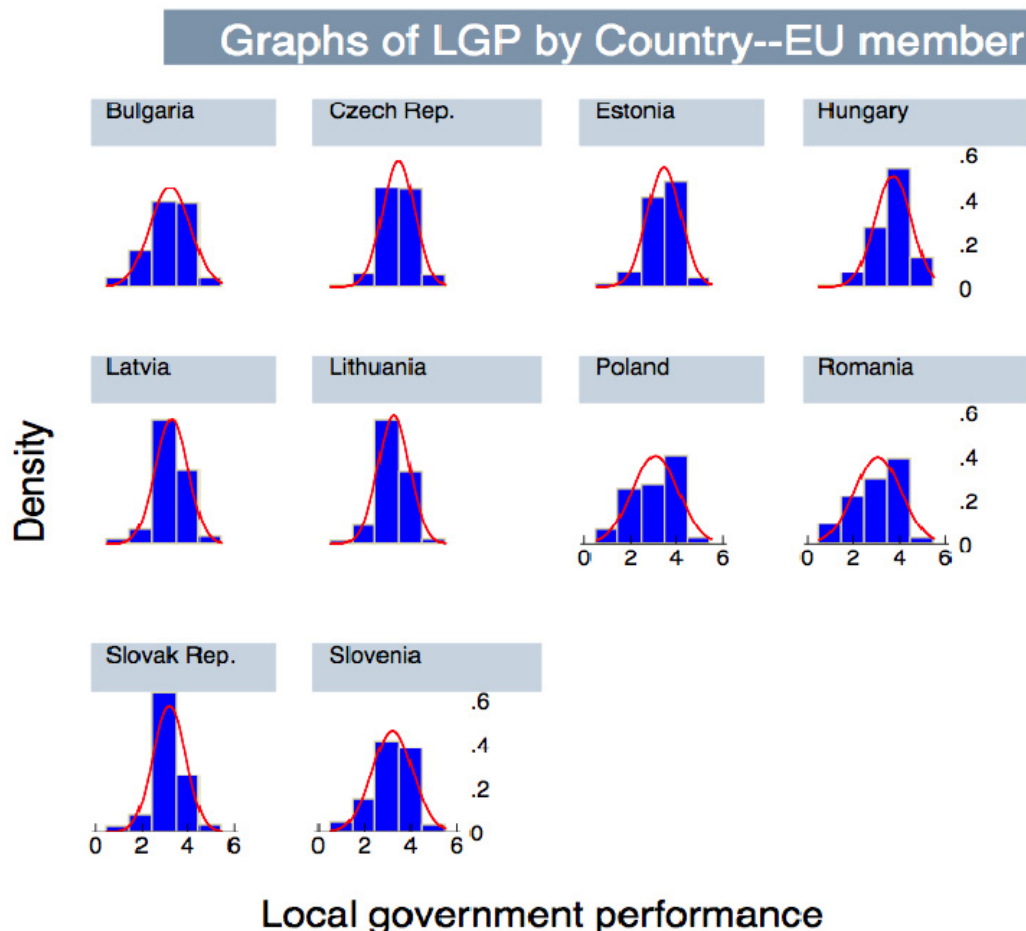


Figure A1b: Distribution of Perceived Local Government Performance (LGP) by country--Southeastern Europe/Balkan countries. Survey item: "Please rate the overall performance of [level of government]."--Very bad = 1; Bad = 2; Neither = 3; Good = 4; Very Good = 5.

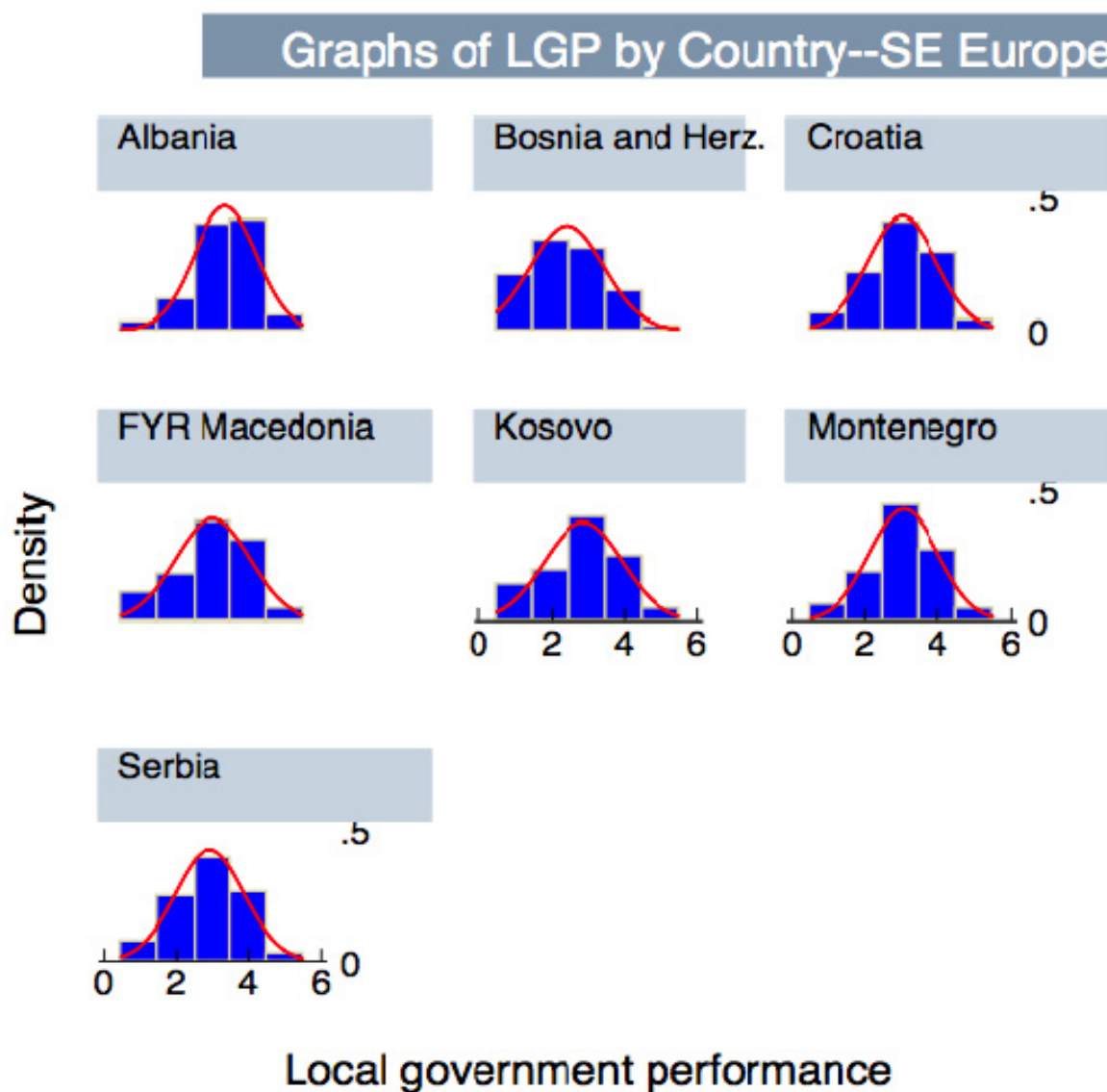


Figure A1c: Distribution of Perceived Local Government Performance (LGP) by country--FSU member countries (excluding EU members, including Mongolia). Survey item: "Please rate the overall performance of [level of government]."--Very bad = 1; Bad = 2; Neither = 3; Good = 5; Very Good = 6.

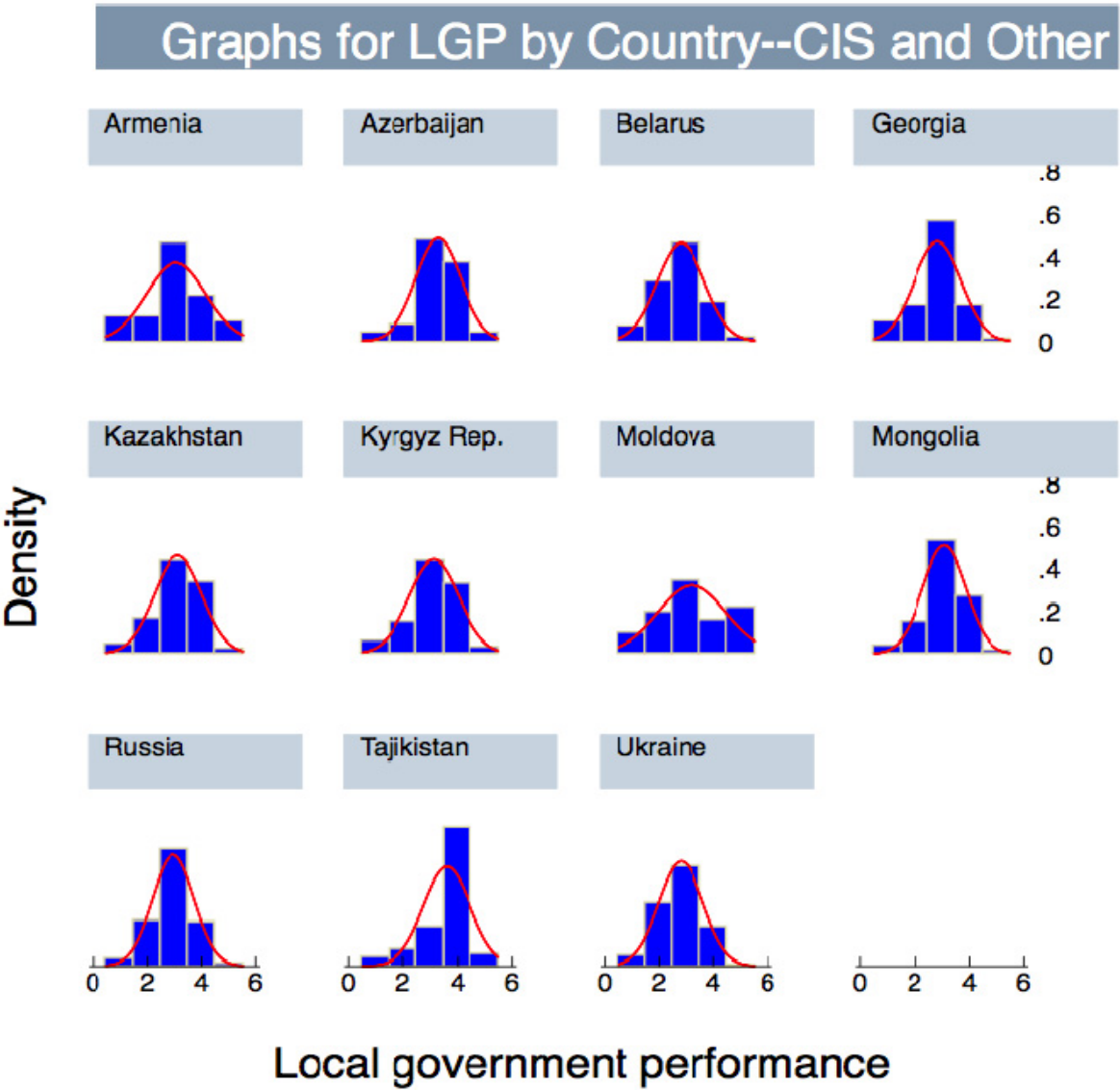


Figure A2a: Distribution of Perceived Central Government Performance (CGP) by country--EU member countries. Survey item: "Please rate the overall performance of [level of government]."--Very bad = 1; Bad = 2; Neither = 3; Good = 4; Very Good = 5.

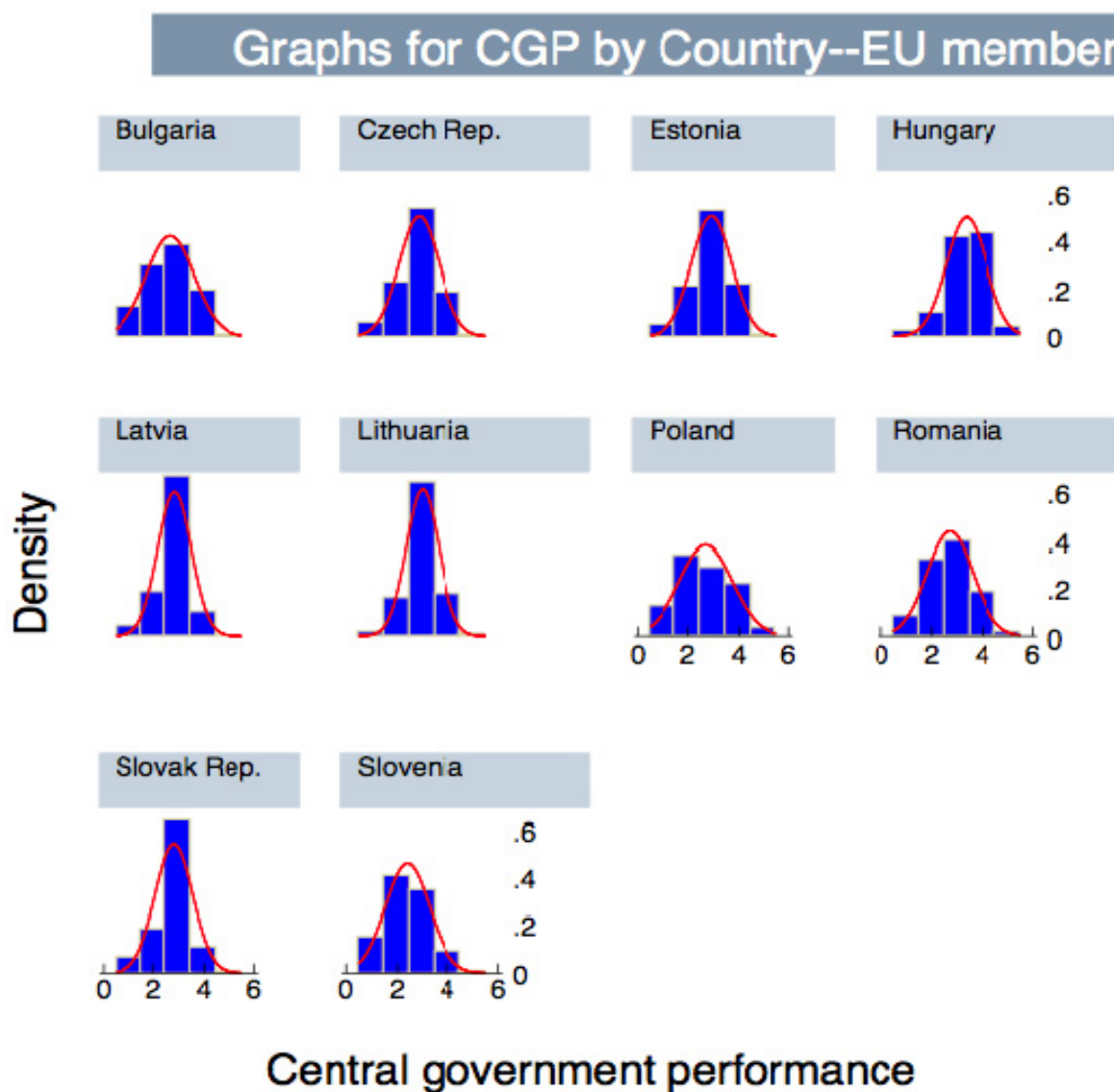


Figure A2b: Distribution of Perceived Central Government Performance (CGP) by country--Southeastern Europe/Balkan countries. Survey item: "Please rate the overall performance of [level of government]."--Very bad = 1; Bad = 2; Neither = 3; Good = 4; Very Good = 5.

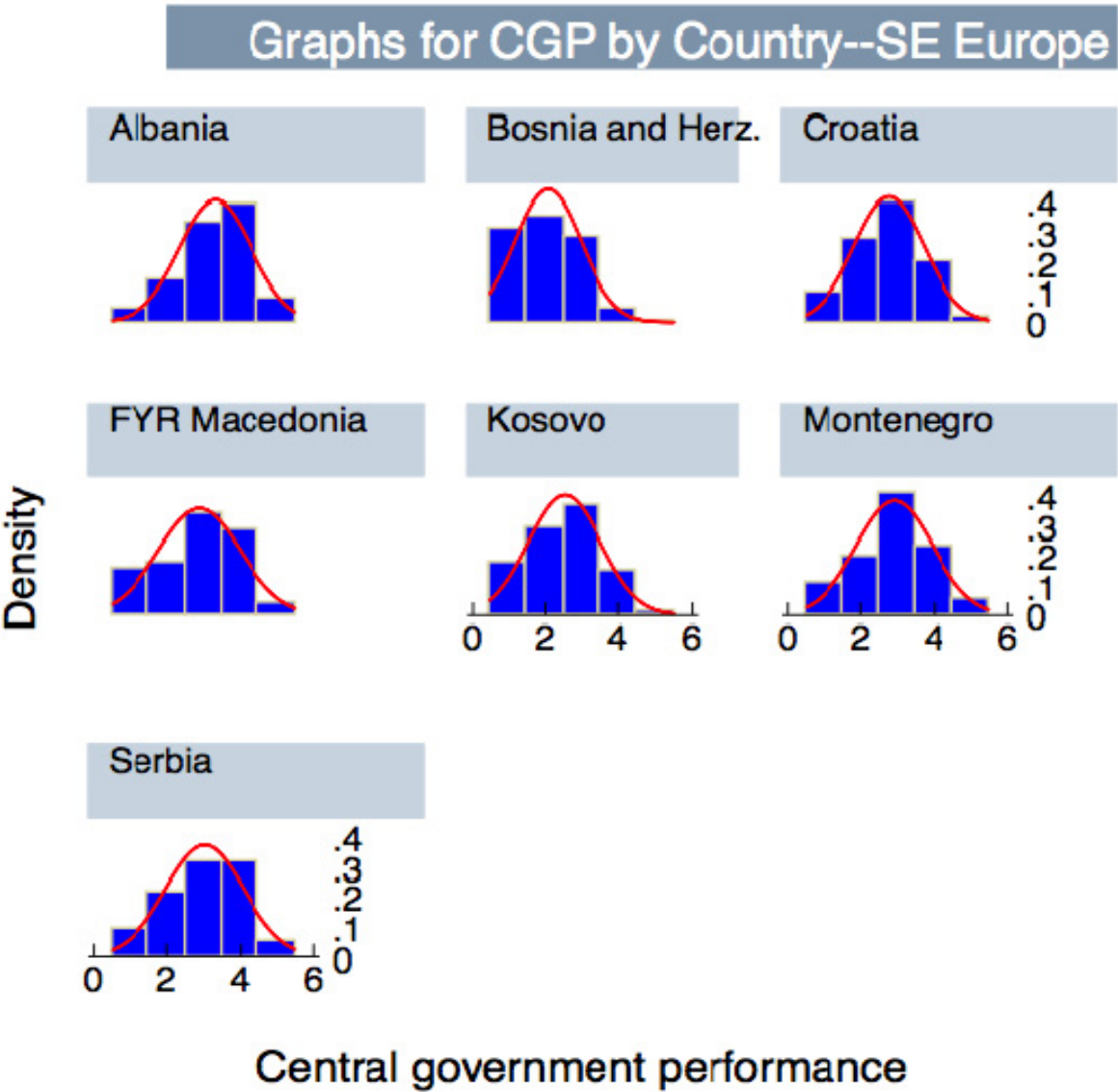


Figure A2c: Distribution of Perceived Central Government Performance (CGP) by country--FSU member countries (excluding EU members, including Mongolia). Survey item: "Please rate the overall performance of [level of government]."--Very bad = 1; Bad = 2; Neither = 3; Good = 4; Very Good = 5.

